

ATTACHMENT J – USER’S MANUAL



Reload Terminal User Manual

1472

3587

FCC Warning

Class B Computing Device

Information to the User

This equipment has been tested and found to comply with the limits for a class B digital device pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help and for additional suggestions.

The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

FCC Warning

The user is cautioned that changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.



■ Revision History

Version	Date	Descriptions	Author	Authenticator
1.00	17.July.2000	Creation	Jongbeom Lee	KiYoung Cho
	21.July.2000	transaction 별 최대 저장 건수 추가 Page 12, Memory map	Jongbeom Lee	KiYoung Cho
	27 July.2000	Memory Map 수정, 화면에는 화폐단위 표시하지 않음 프린트출력에는 화폐단위 표시함. Monthly Pass 충전시 충전월 update.	Jongbeom Lee	KiYoung Cho
1.01	4. August 2000	Translated into English	Youngbae Oh	CS Park



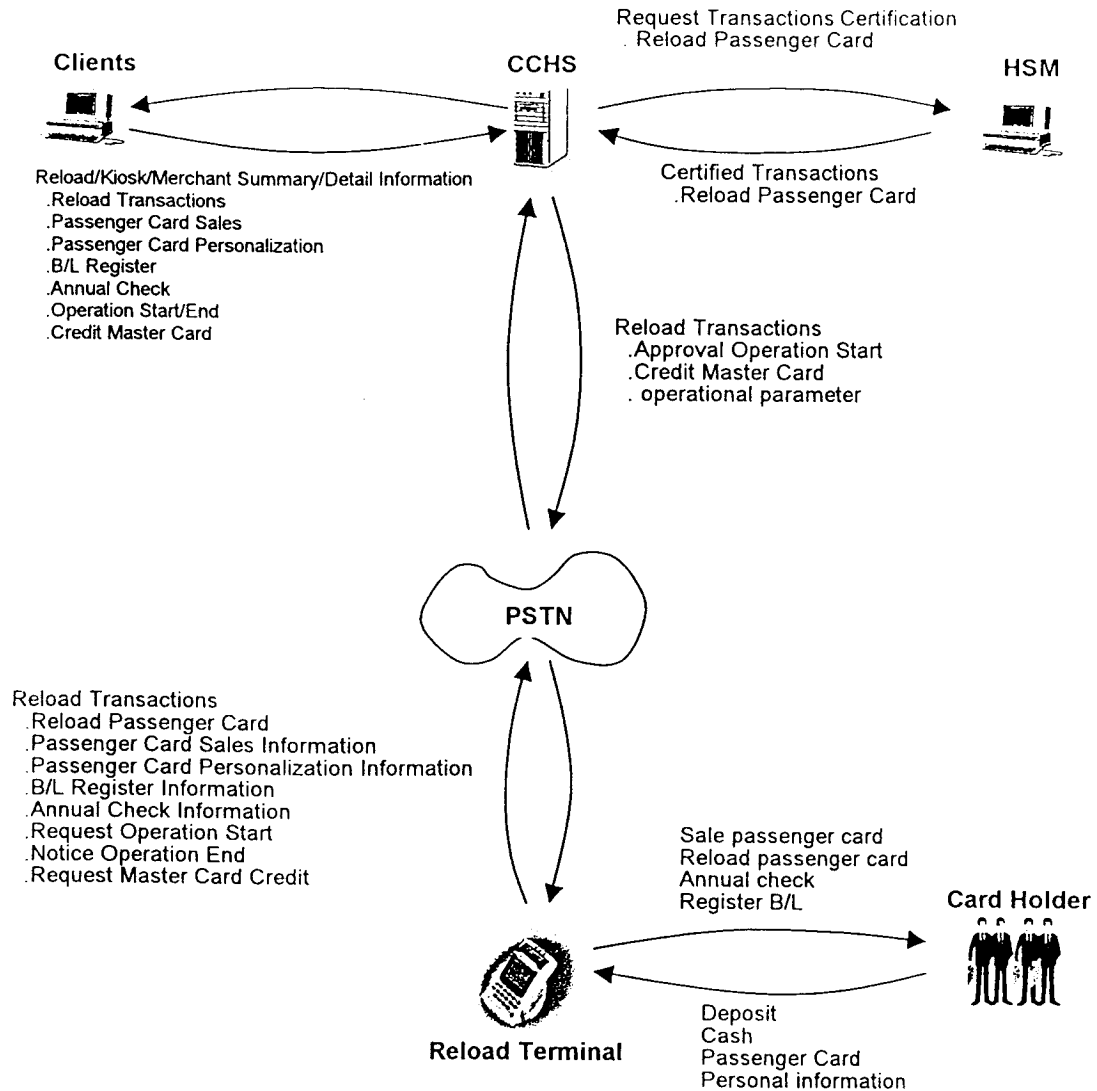
Contents

I. Reload terminal requirements	
1. System configuration	4
2. Operational description	
2-1. Bus Card's Sales	5
2-2. Bus Card Reloading	5
2-3. Registration of lost card	5
2-4. Daily Job Open/Close	5
2-5. Personal id Registration and alteration	6
2-6. Annual check	6
2-7. Card holder type Alteration	6
2-8. Master card Reloading	6
3. Hardware configuration	7
4. Hardware specification	8
5. Feature	9
II. Reload Terminal Software specification	
1. Structure	11
2. Memory map	12
3. Operation description	
3-1. MAIN	13
3-2. Card Sales	14
3-3. Passenger card Reloading (Common purse)	15
Passenger card Reloading (Monthly pass purse)	17
3-4. Master card Reloading	19
3-5. Annual check	20
3-6. Lost card registration	21
3-7. Job Open/Close	22
3-8. Transaction data Transferring	23
3-9. Data printing	24
3-10. Installation and set up	
Reloader installation	25
Change date	27
Change time	27
Change line	28
Change HOST telephone number	28
Automatic receipt print	28
Set up configuration printing	29
Set up passenger display	29
Backup transaction transferring	29



I. Reload terminal requirements

1. System configuration





2. Operational Description

2-1. Bus Card's Sales

- Receive Deposit from passenger.
- Monthly pass card can be purchased by submitting Bus Card application form and id card.
- Write Sales and personal information on Bus Card.
Sales date, Expire date, Holder type, Personal id, Deposit amount, etc.
Once card writes sales and personal information it can not be purchased any more.
Only Common card, Monthly pass card can be purchased.
Free card can not be purchaed.
- Issuing Sales receipt.
Sales and Sales point information, Sales Date, Card Number, Deposit Amount, Receipt Number, National id, Holder type.
- Sales Information should be transferred to HOST.

2-2. Bus Card Reloading

- Card should be reloaded by Cash.
- OFF-LINE Reloading, ON-LINE Transferring for reloading information.
- No Black list check.
- No Reloading for Free card.
- All purse should be checked by display.
Reloading display and passenger display will be used.
- card holder selects purses to be reloaded.(common purse, monthly)
- Reloading amount(Point) and the balance after reloading will be displayed on reloading display and passenger display.
- Monthly pass purse reloads the number of transit and this number will be exchanged with cash.
- Monthly pass purse can reload the amount of three month within validation period with selecting one reloading class out of four classes.
- Monthly pass purse' reloading point can be selected on four reloading amount classes.
Each class' s point is fixed and downloaded from HOST.
- Common purse' s reloading request amounts are 10,20,30,ETC.
In the case of ETC, reloading amount is over 10RMB and by the unit of 10RMB.
- Common purse' s maximum balance can not exceed 500RMB.
- After the completion of reloading, reloading receipt is printed out automatically.
- Master card will be used for the purpose of reloading control.
- Reloading information will be transferred to HOST.

2-3. Registration of lost card

- Registration condition can be valid for only personal id registered Card(Common, Monthly pass).
Free card is invalid for processing.
- Input lost date and card number.
Card Holder should submit reloading or sales receipt.
- Information for lost card should be transferred to HOST.

2-4. Daily operation Start/End



2-5. Personal id Registration and Alteration

- Only case of student's Monthly pass card is available for alteration.
Adult Monthly pass card is not available.
Alteration is capable at Annual check.
- Card holder should submit receipt.
- Personal id registration information will be transferred to HOST.

2-6. Annual check

- Free card can not be checked.
- Card holder should submit personal id card and receipt.
- Starting date of student card is 1st of August and that of adult card is 31th of December.
Card's starting date for each card holder type is downloaded from HOST.
- When sales Monthly pass card, starting date within current year for each card holder type will be used as valid period.
- Annual check is capable from before three months at the point of starting date.
- Common card has no validity date so do not Annual check.
- Only Monthly pass card can be capable of reloading terminal.
Free pass card is capable of alteration in Help desk terminal in CCHS.
- Extension of validity date is selectable(6 months,1year) and can input arbitrary valid period.
- Information of validity period extension is transferred to HOST.

2-7. Card holder type Alteration

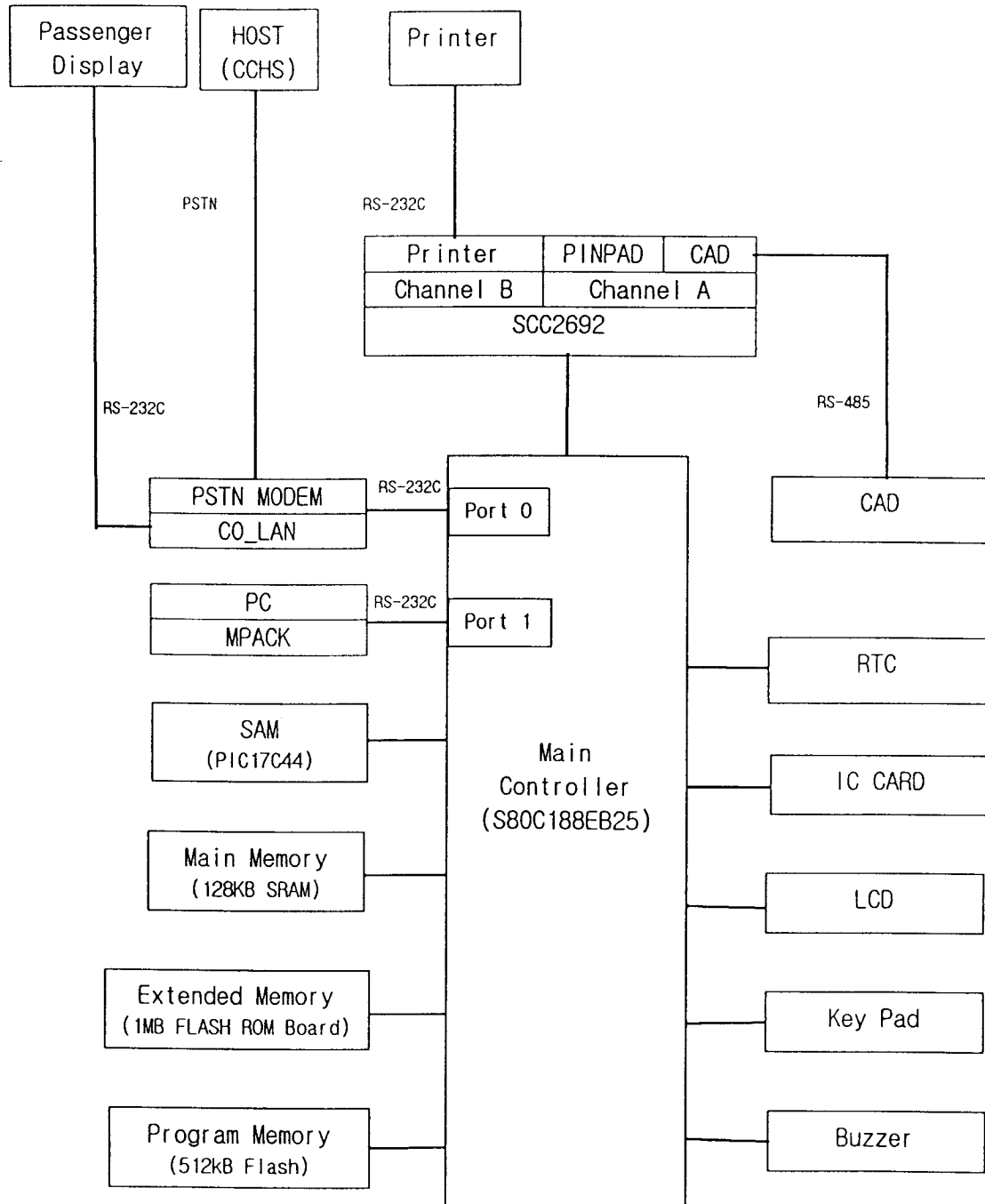
- Free card can not be altered.
- Card holder should submit personal id card and receipt.
- Alteration is available from student to adult.
- Alteration is only valid for Annual check.
And is valid for out of validity date and in the case of no pre-paid Monthly pass purse.
- holder type alteration information should be transferred to HOST.

2-8. Master card reloading

- Master card is reloaded by maximum reloading amount.
Reloading amount = Maximum reloading amount - card balance
- The balance of defect card do not transfer.
After issuing new card and then user reloads amount.



3. Hardware configuration





4. The functional description of each device

5-1. Master card

- Restore maximum amount of reloading.
- Gemplus MPCOS-EMV 32K
- Only one Purse is used.
- The maximum amount of Purse is 1,500,000.0 Ryuan. (decimal point is one digit, that is, KAK is one digit)

5-2. RF Passenger card

- MOTOROLA Tier 0 card (Mercury)
- 8.4Kbits
- Contactless ISO 14443-3 Type B compliant
- The maximum amount of Common purse is 500.00Tyuan. (decimal point is two digit, That is, KAK is two digits)

5-3. Main controller

- Main Controller
- S80C188EB25 16 bit CPU
- 16 MHz OSC. Clock

5-4. SAM (Security Access Module)

- Data Cyphering/Decyphering
- PIC 17C44

5-5. Main memory

- Main memory
- SRAM
- 128KB with battery backup
- Location : 0x00000 ~ 0x1FFFF
- Data temporary restoring and many kinds of transaction restoring.

5-6. Extended memory

- Sub-memory
- 1MB FLASH ROM
29EE020(256KB) X 4
- Access type : Bank Selection
- Location : 0x40000 ~ 0x7FFFF
- Download data and many kinds of transaction Backup

5-7. Program memory

- Program memory
- 512KB FLASH ROM
28SF040(512KB) X 1
- Location : 0x80000 ~ 0xBFFFF
- Program and data backup

5-8. CAD (Card Access Device)

- RF card communication device
- 115.2Kbps



5-9. RTC (RealTime Clock)

- Calendar and real time clock
- RTC 72423A
- Current date and time keeping

5-10. LCD (Liquid Crystal Display)

- Liquid Crystal Display
- English 16 characters 4Lines
- ASCII, Chinese character dispalyable

5-11. Keypad

- Data input device
- Total 23 Key.
Figure 11keys, Function 7 keys, other function 5 keys
- Figure data input and function selection

5-12. PC port

- Communication device
- RS-232C, Max.115.2Kbps
- Controlling by Communication Protocol Software.
- Program download(38400bps, 8data bits, none parity, 1 stop bit)
- Dual usage for a memory pack porting.

5-13. CO_LAN port

- Communication device
- RS-232C, 9600bps, 8 data bits, none parity, 1 stop bit
- Controlling by communication Protocol Software.
- can be used for connecting port to passenger display.

5-14. Printer port

- Communication device
- RS-232C, 9600bps, 8 data bits, none parity, 1 stop bit
- Controlling by communication Protocol Software.
- can be used for connecting port to printer

5-15. Pin pad port

- Communication device
- RS-232C,
- is used for connecting port to CAD
- Controlling by communication Protocol Software.
Initial 9600bps, 8 data bits, even parity, 1 stop bit
Operational 115.2Kbps, 8 data bits, even parity, 1 stop bit

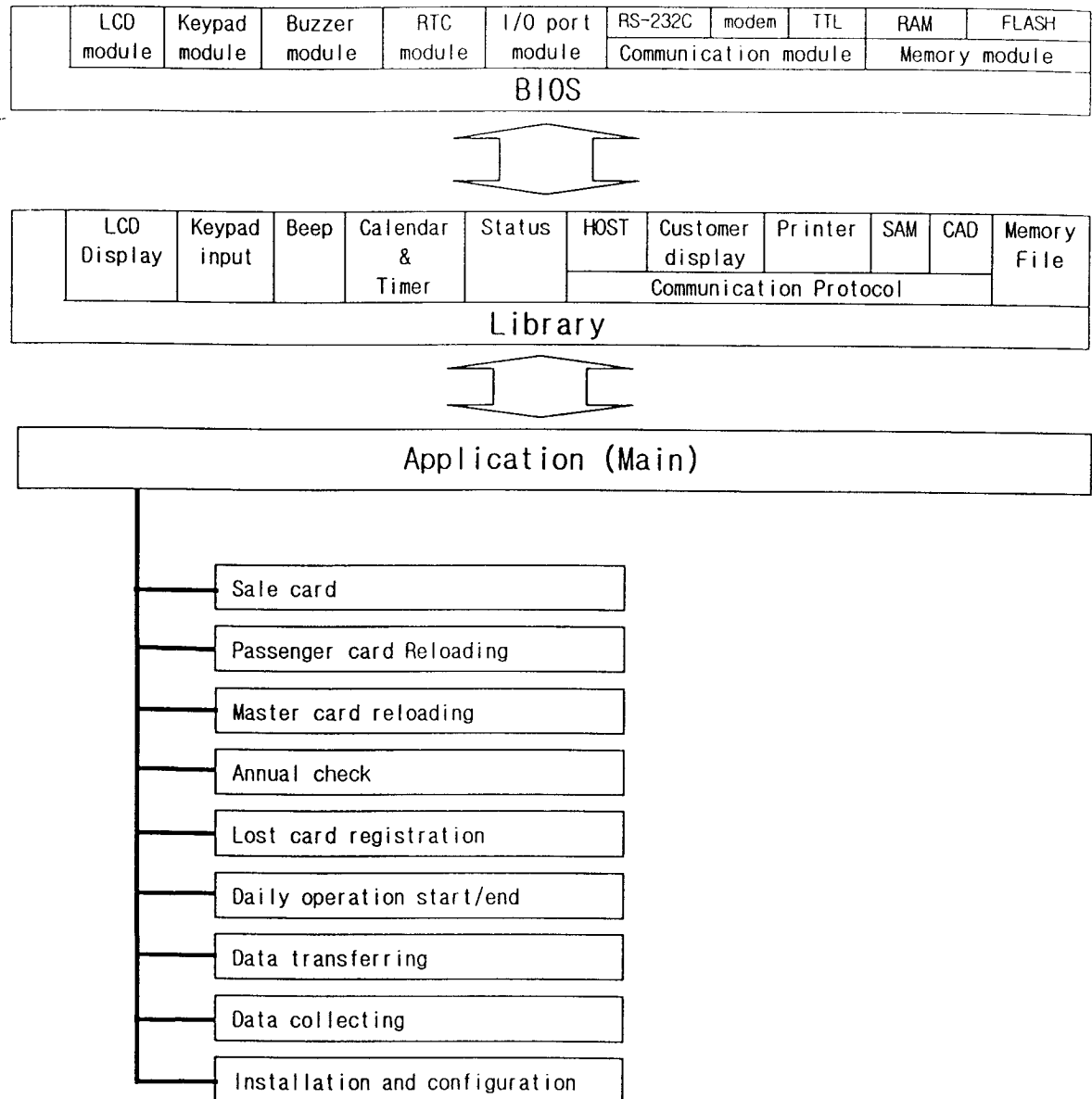
5-16. LINE port

- Communication device
- PSTN modem, 1200bps, 8 data bits, none parity, 1 stop bit
- Controlling by Protocol Software.
- is used as HOST(CCHS) connection Port



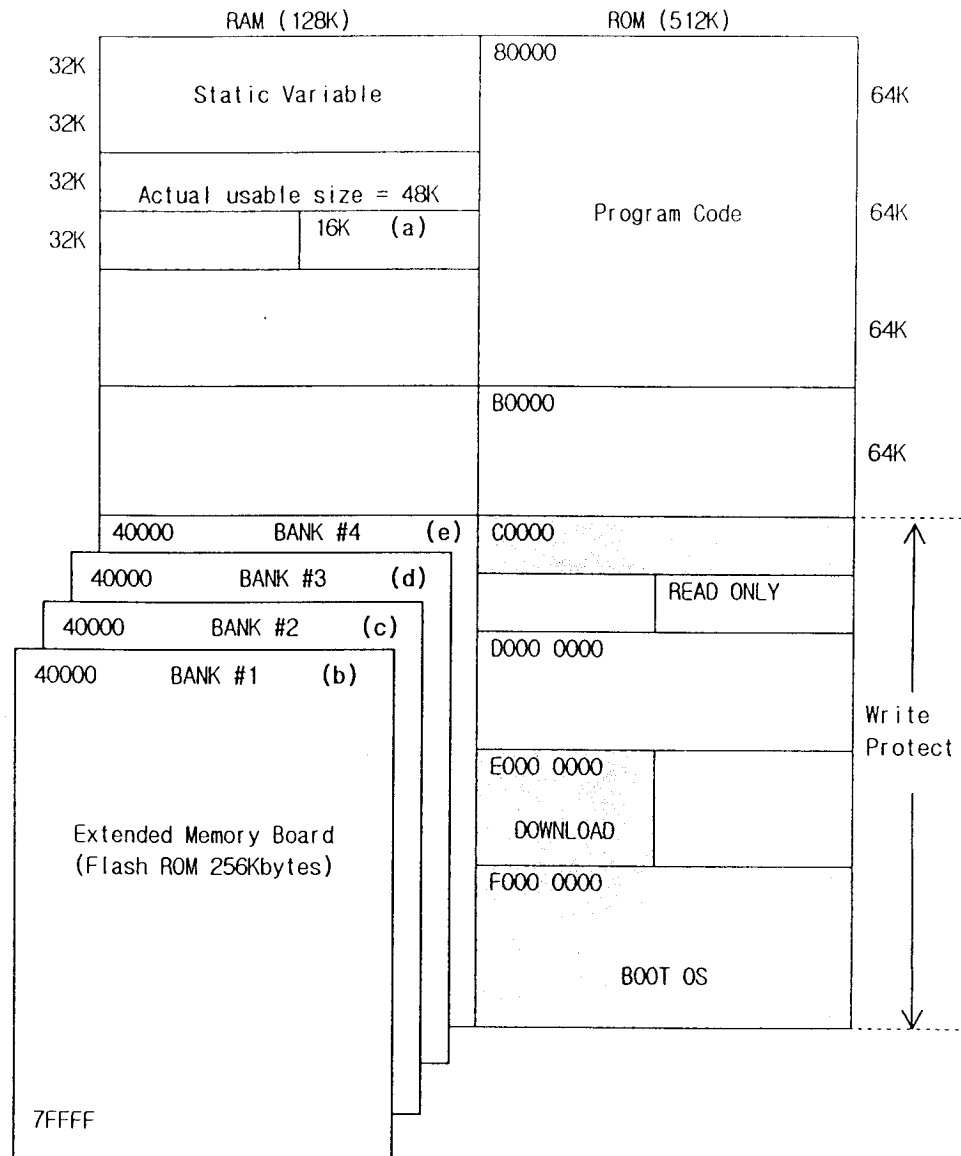
II. Reload Terminal Software Specification

1. Structure





2. Memory map



- (a) Flash ROM write interrupt handling routine
- (b) Download data backup, Recharge transaction data backup (max. 350 transaction)
- (c) Card sales, lost card registration, backup (max. 1,000 transaction)
- (d) Annual check, card sales, backup (max. 1,000 transaction)
- (e) Lost card registration, Annual check backup (max 1,000 transaction)



3. Process description

3-1 MAIN

Display / Print	Processing
<div>Card Recharger [10001] 2000.7.15 10:30</div>	<ul style="list-style-type: none">- Key define<ul style="list-style-type: none">Insert card : Check balance of Passenger card and reloadF1 : Operation Start/EndF2 : Receipt re-printingF3 : Lost card registrationF4 : Update validity dateF5 : Master card reloadingF7 : Installation and configurationSND : Data transferringTOT : Printing out collected dataENT : Check the balance of Master card- Power on check items<ul style="list-style-type: none">. On checking operation starting date, if it is not related date the terminal requests operation starts automatically.. If any transaction which has not transferred, terminal transfer transaction automatically.. If automatic transferring condition that is set in HOST is satisfied, terminal transfers transaction.. If the balance of Master card satisfies automatic reloading condition that is set in HOST terminal requests automatic reloading.. When download data of Main memory is defect, they are recovered from Flash ROM.. If Autodownload flag is set terminal requests auto download.- Terminal no, current date, time are displayed at initial display.- Call the function of input key.- When Passenger card is inserted operator check sales date and if there is no sales date operator call sales function. If sales date exists operator call reloading function.



3-2. Card Sales

Display / Print	Processing
<div> Sales card Dep: 99999999.99 NID: _____ _____ </div>	<ul style="list-style-type: none"> - On checking sales date of card, if card has already been sale terminal refuses access. - Display card deposit and do not display currency unit. - Key in National id 20 digits of card holder. The first 10 digits are key-in automatically the last 10 digits are stand-by for key-in. CLR : End
<div> Sales card Holder type Adult Student </div>	<ul style="list-style-type: none"> - Selects Holder type. F2 : Adult F3 : Student CLR : End
<div> 2000.12.31 Adult NID: 1234567890 1234567890 Press ENT key </div>	<ul style="list-style-type: none"> - Display input data and receive final confirmation. Validity period, holder type, NID Validity period is determined by starting date of card which has set from HOST. ENT : Confirmation CLR : End
<div> Receipt Company: Address: Name of Rep.: Company No.: Sales date: Card No.: Sales amount: 10.00 元 NID: </div>	<ul style="list-style-type: none"> - Write Sales information and personal information. card data update sequence <ol style="list-style-type: none"> 1. NID (#2 L24 B00 - B09) 2. Deposit (#2 L24 B11 - B14) 3. Holder type (#2 L17 B06H) 4. Validity period (#2 L17 B09 - B10) 5. Sales Flag (#2 L17 B11H) 6. Sales date (#2 L17 B12 - B14) In the case of ending by error, recovery process is not needed.
<div> Sales card Completed Take out a card </div>	<ul style="list-style-type: none"> - Restore card sales information on transaction file. Sales date, Card No., NID, Validity period, Deposit, Holder type, etc - Print out card sales receipt. Display currency unit. - Wait until card is taken out.



3-3. Passenger card Reloading

Display / Print	Processing
<div> Recharging Deny Take out a card </div>	<ul style="list-style-type: none"> - If card is locked or out of valid error message is displayed and end the process. - Follow reloading procedure according card types.
<div> Recharging Bal: 99999999.99 10 20 30 ETC </div>	<p>In the case of Common card</p> <ul style="list-style-type: none"> - Display current balance and input requested reloading amount. Currency unit is not displayed. F1 : 10 F2 : 20 F3 : 30 F4 : Input reloading amount. Input amount unit is Yuan, check whether the unit is over 10 Yuan 10 Yuan. CLR : End - Current balance and requested reloading amount is displayed on Passenger display. Two decimal digit is displayed. - Debit reloading amount form Master card. debit amount = requested reloading amount X 10 Master card amount is one digit KAK unit. - If Master card debit is normal terminal restore reloading transaction data on memory. - Write reloading data on Passenger card. Reloading amount = Requested reloading amount X 100 Passenger purse amount is two digits' KAK unit. <p>card data update sequence</p> <ol style="list-style-type: none"> 1. Last debit log (#1 L1) 2. Last debit log backup (#1 L2) 3. Purse credit Approval code backup (#1 L11 B08-B14) 4. Purse credit Approval code (#2 L26 B08-B14) 5. Last purse credit log (#2 L18) <p>If error occurs error during updating Purse credit Approval Code is recovered to before state and end process.</p> <ol style="list-style-type: none"> 6. Last purse credit log backup (#2 L19) 7. Credit count (#2 L29 B05-B08) 8. Purse (#10 L61 B00-B03) <p>If error occurs error during updating credit count is recovered to before state and end process.</p>
<div> Recharging 10.00 Please Wait </div>	



Display / Print	Processing
<div>Error Receipt Company name: Address: Name of Rep.: Company No.: Terminal No.: Reloading date: Card No.: Reloading amount: 10.00 元 Balance of before reloading: 0.00 元 Balance of after reloading: 10.00 元 Approval No.: M/C Balance of after reloading: 100.00 元 TC code: Receipt No.:</div> <div>Receipt Company name: Address: Name of Rep.: Company No.: Terminal No.: Reloading date: Card No.: Reloading amount: 10.00 元 The balance of before- reloading: 0.00 元 The balance of after- reloading: 10.00 元 Approval No.: 충전후 M/C 잔액: 100.00 元 TC code: Receipt No.:</div> <div><div>Recharging</div><div>Completed Take out a card</div></div>	<ul style="list-style-type: none">- If passenger card reloading error occurs after Master card debit terminal print out error receipt. Display currency unit.- On normal completion for Passenger card reloading, reloading transaction data in memory is updated for normal memory. Reloading date, Card No., purse type, Reloading amount (Two decimal digits), card holder type, TC code, Approval No., The balance of before-reloading/after-reloading for passenger card, The balance of after-reloading for master card, Reloading results, etc.- Display reloading receipt. Display currency unit. Receipt No. is five digits serial number starting on every first month.- Wait until card is taken out.



Display	Processing
<div> <div>Recharging</div> <div>Monthly Common</div> </div> <div> Bal: 99999999.99 00/07 100.00 00/08 80.00 00/09 100.00 </div> <div> <div>Recharging</div> <div>Reloading month:</div> <div> 80.00 40 60 80 100 </div> </div>	<p>In the casf of Monthly pass card</p> <ul style="list-style-type: none"> - Select purse to be reloaded. F2 : Monthly pass purse F3 : Common purse F4 : Purse balance inquiry ENT : Acknowledge CLR : End - In the case of Common purse, it is processed by the same procedure to Common card. - Purse balance inquiry displays only valid purse balance. Common purse balance, Monthly pass purse displays transaction date and point. Currency unit is not displayed. - Each purse balance is displayed on passenger display. Common purse balance is display two digit decimal. Monthly pass purse displays three digit decimal including relevant month. For example, card has 100.50 point on October It displays as 10 100. After waiting for temporary time(0.5sec), repeat with the same method to display following purse until completion of inquiry. - On input CLR key operate ends inquiry and back to previous display . - After checking usable season purse area (#2 L17 B00-B05) if it has no area terminal displays message("Full storage") and ends the process. - Input month to reload. (YYMM) Checking whether input month is valid for reloading. Checking card' s validity period and valid period set by HOST. Checking whether card already has reloaded. ENT : Input completion CLR : End - Display point class set by HOST and select the point to reload. F1 : The fist point amount F2 : The second point amount F3 : The third point amount F4 : The fourth 네번째 point amount ENT : Acknowledge CLR : End - Display selected point with translation to cash amount. Requested reloading amount= point X Translated amount set by HOST - Display input month and selected point on passenger display. Point displays only integral number.



Display / Print	Processing
<div> Recharging Month: 2000/10 Point: 80 Please Wait </div> <div> Error Receipt Company name: Address: Name of Rep.: Company No.: Terminal No.: Reloading date: Card No.: Reloading month: Reloading point: 10.00 Before-reloading point: 0.00 After-reloading point: 10.00 Approval No.: After-reloading M/C balance: 100.00 元 TC code: Receipt No.: </div> <div> Receipt Company name: Address: Name of Rep.: Company No.: Terminal No.: Reloading date: Card No.: Reloading month: Reloading point: 10.00 Before reloading point: 0.00 After reloading point: 10.00 Approval No.: After-reloading M/C balance: 10.00 元 TC code: Receipt No.: </div> <div> Recharging Completed Take out a card </div>	<ul style="list-style-type: none"> - Debit requested reloading amount converted from Master car. debit amount = Requested reloading amount / 10 Master card amount is one digit KAK unit. - If Master card debit is normal terminal restore reloading transaction data on memory. - Write reloading data on Passenger card. Reload input month and selected point amount. Select area which is not used or out of date. <p>card data update sequence</p> <ol style="list-style-type: none"> 1. Last debit log (#1 L1) 2. Last debit log backup (#1 L2) 3. Purse credit Approval code backup (#1 L11/L12/L13) 4. Purse credit Approval code (#2 L26/L27/L28) 5. Last purse credit log (#2 L20) If error occurs during updating terminal recovers Purse credit Approval code to previous state and ends. 6. Last purse credit log backup (#2 L21) 7. Credit count (#2 L29 B00-B03) 8. Credit month (#2 L17) 9. Purse (#10 L60) If error occurs during updating terminal recovers Purse credit count to previous state and ends. <ul style="list-style-type: none"> - If after Master card debit 후 passenger card reloading error occurs terminal print out error receipt. - In Passenger card reloading is normally completed terminal updates reloading transaction data in memory as normal reloading. Reloading date, Card No, purse type, Reloading point(two decimal place), card holder type, TC code, Approval No, passenger card' s point before/after reloading, master card' s balance after reloading, Reloading result, Reloading month, point type, Converted amount, etc. - Print out reloading receipt. Display currency unit. Receipt No. is five digit serial number starting from number one every day. - Wait until card is taken out.



3-4. Master card Reloading

Display / Print	Processing
<div>M/C Recharge</div> <div>Not reloadable Press ENT key</div>	<ul style="list-style-type: none">- If Master card does not exist or is not registered at terminal installation or is defected terminal ends process.
<div>M/C Recharge</div> <div>Dialing Please Wait</div>	<ul style="list-style-type: none">- Contact to HOST.- After connection to HOST, processing procedure : Refer to "Communication Protocol for CREDIT DISTRIBUTION between CDS and RELOAD TERMINAL"
<div>M/C Recharge</div> <div>Processing Please Wait</div>	
<div>M/C Recharge</div> <div>Completed Press ENT key</div>	



3-5. Annual check

Display	Processing
<div>Annual check Insert a card</div>	<ul style="list-style-type: none">- Wait until card is inserted.
<div>Annual check Not updatable Take out a card</div>	<ul style="list-style-type: none">- If current date is not set in the period to be determined from HOST terminal display Error Message and sounds warning (Beep three times) and then completes processing.- If it is not Monthly pass card terminal delivers Error message and warning sound(beep three times) and then completes processing.
<div>NID: 1234567890 1234567890 00.12.31 Adult 6M 12M ETC</div>	<ul style="list-style-type: none">- Displays NID, Current validity period, card holder type.- Input or select extension period.<ul style="list-style-type: none">F1 : Extend six monthsF2 : Extend twelve monthsF3 : ETC, Input validity period.(YYYYMM)CLR : End
<div>Annual check Change NID 1234567890 1234567890</div>	<ul style="list-style-type: none">- If Card holder type is student terminal displays current NID and new NID is received.<ul style="list-style-type: none">DEL : Delete one character input latest.CLR : End- When inputting "ENT" key without new NID input if "ENT" key is input terminal does not change NID.
<div>Annual check Change type Student->Adult YES NO</div>	<ul style="list-style-type: none">- If Card holder type is student terminal display holder type change display.<ul style="list-style-type: none">F2 : YESF3 : NO (default)CLR : End- After selecting input "ENT" key.
<div>NID: 1234567890 1234567890 01.12.31 Adult Press ENT key</div>	<ul style="list-style-type: none">- Display data to be changed and input final confirmation.<ul style="list-style-type: none">NID, Validity period, card holder typeENT : AcknowledgeCLR : End
<div>Annual check Completed Take out a card</div>	<ul style="list-style-type: none">- Write Annual check data on card.<ul style="list-style-type: none">Adult : Validity period,Student : Validity period, NID, card holder type- Restore Annual check transaction data on memory.<ul style="list-style-type: none">annual check date/time, Card No., Validity period, NID, card holder type, etc.



3-6. Lost Card Registration

Display / Print	Processing
<div>Lost card Card no. _____</div>	<ul style="list-style-type: none">- Input card no.. If it is not Passenger card terminal displays error message and ends processing.
<div>Lost card NID _____ _____</div>	<ul style="list-style-type: none">- Input NID(National id).
<div>Lost card Completed Press ENT key</div>	<ul style="list-style-type: none">- Restore lost card registration transaction data. Registration date/time, Passenger card no, NID, etc.



3-7. Job open/close

Display / Print	Processing
<div>Job open/close</div> <div>Open Close</div>	<ul style="list-style-type: none">- Select Job open/close.<ul style="list-style-type: none">F2 : Job openF3 : Job CloseCLR : End
<div>Job Open</div> <div>OP id : ____</div>	<p>Request Job open</p> <ul style="list-style-type: none">- Input operator id and read Master card.<ul style="list-style-type: none">Master card No., Master card balance- Restore operator id as operator.- Transfer job open request Message to HOST.- If terminal receives normal acknowledge form HOST it restore Job Open date.- If Auto-download flag is set terminal requests download automatically.
<div>Job Open</div> <div>Please Wait</div>	
<div>Job Close</div> <div>Please Wait</div>	<p>Request Job Close</p> <ul style="list-style-type: none">- If there are not transferred data once terminal transfer all transaction data to HOS and requests Job Close.- Read Master card.<ul style="list-style-type: none">Master card No., Master card balance- Transfer Job Close Request Message to HOST.- If terminal receives normal acknowledge message from HOST it clears Job Open date and deletes all transaction data- If Autodownload flag is set terminal request download automatically.



3-8. Transaction data Transferring

Display / Print	Processing
<div> Transmit data Please Wait </div>	<ul style="list-style-type: none"> - If there are no Transaction data to transfer terminal closes processing. Reloading data, Card Sales Data, Annual check data, Lost card Registration data, etc.
<div> Transmit data Dialing Please Wait </div>	<ul style="list-style-type: none"> - Contact to HOST.
<div> Transmit data Recharge data 1/50 Please Wait </div>	<ul style="list-style-type: none"> - Transfer Transaction data. <ol style="list-style-type: none"> 1. Passenger card reloading data 2. Card sales data 3. Annual check data 4. Lost card registration data
<div> Transmit data Completed Press ENT key </div>	<ul style="list-style-type: none"> - If RAM data is defected terminal transfer after recovering data from Flash ROM. - When transferring after recovering download data in RAM terminal transfers only Flash ROM' s data. At this time reloading transaction data set all re-transferred flag. - Display data class to transfer, Total transaction data, Number of transferred data.
<div> Report Reload No.: Transferring date/time: Total: yian Common: no. yian Monthly: no. point yian Sales: no. yian Annual no. Lost no. </div>	<ul style="list-style-type: none"> - If transferring is completed terminal prints out transferred data tabulation. Terminal No., Reload No., Transferring date, Total sales amount (Total = Common + Monthly + Sales), Summation amount and number of reloading for each purse, Summation amount of card deposit, Number of Annual check, Print out number of lost card registration. Display currency unit.



3-9. Report printing

Display / Print	Processing
<div>Sales Total</div> <div>No transaction</div>	<ul style="list-style-type: none">- If there are no Transaction data to totalize terminal ends processing. Reloading data, Card sales data, Annual check data, Lost card registration data, etc.
<div>Select output</div> <div>F1 Simple print F2 Detail print F3 LCD display</div>	<ul style="list-style-type: none">- Select print method for collected data. F1 : Print out total tabulation. F2 : Print out detail tabulation. F3 : Display total tabulation. CLR : End
<div>Simple Report</div> <div>Reloader No.: Collecting data/time: Total: yian Common: no. yian Monthly: no. point yian Sales: no. yian Annual no.</div>	<ul style="list-style-type: none">- Total tabulation Print out total tabulation for all Transaction. Reloader No., Collecting data/time, Total sales amount (Total = Common + Monthly + Sales), Number of reloading transaction for each purse and Total amount, Total amount of card deposit, Number of Annual check, Printer out number of lost card registration. Display currency unit.- Detail tabulation Print out detail data for each transaction. Reloader No., Collecting data/time, Reloading : reloading date/time, card no., reloading purse, reloading amount(point), process result Sales : Sales date/time, Card no., NID, card holder type, Validity period Annual check : check date/time, Card no., NID, card holder type, Validity poeriod. Lost card registration : Registration date/time, Card no., NID Display currency unit.



3-10. Installation and set up

Display / Print	Processing
<div>Install & Setup F1 Install F2 Setup</div>	<ul style="list-style-type: none">- Select following jobs.<ul style="list-style-type: none">F1 : Reload installationF2 : Set up environmentCLR : End
<div>Install Password _____</div>	<ul style="list-style-type: none">Install<ul style="list-style-type: none">- Submit password for installation function. "3587"
<div>Install Communication Network PSTN RS-232C</div>	<ul style="list-style-type: none">- Select communication line.<ul style="list-style-type: none">F2 : PSTNF3 : RS-232CCLR : End
<div>Install Use switchboard YES NO</div>	<ul style="list-style-type: none">- Select switchboard usage for PSTN.<ul style="list-style-type: none">F2 : YES (Use switch board)F3 : NO (Do not use switchboard)CLR : End
<div>Install Dial MODE TONE PULSE</div>	<ul style="list-style-type: none">- Select dial mode for PSTN.<ul style="list-style-type: none">F2 : TONE(electronic mode)F3 : PULSE(mechanic mode)CLR : End
<div>Install HOST Tel. No. _____</div>	<ul style="list-style-type: none">- Dial telephone number for HOS connection in PSTN. In the case of out of local area, operator input local area code. Maximum 16 digit can be input.



Display / Print	Processing
<div>Install Reloader no. _____</div>	<ul style="list-style-type: none">- Submit reloader no. Reloader no. is five digits.
<div>Install Master card no. 1234567890123456 Press ENT key</div>	<ul style="list-style-type: none">- Check Master card's validity Display Master card no.
<div>Install Dialing Please Wait</div>	<ul style="list-style-type: none">- Connect to HOST.
<div>Install [60 %] ■■■■■■■■■■ Please Wait</div>	<ul style="list-style-type: none">- Display processing status for Parameter download.
<div>Install Completed Press ENT Key</div>	<ul style="list-style-type: none">- Download data is restored on Flash Rom for back up by adding CRC on message fro HOST. When Main memory's download data is defected terminal do not connect to HOST but re-install.- Print out setting configuration when Download is completed. Reloader no., Company name, Address, Name of representative, Company No., Reloading Kiosk No., Tel no., etc. Installation date/time, Card deposit amount, Purse maximum balance, HOST Telephone number, Reloading commission, Transferring condition, M/C reloading condition, Starting point for adult, Starting point for student, Monthly pass pre-reloading due, Annual check period, Number of issuer, Issuer ID, Monthly pass reloading point class, Return amount for point.



Display / Print	Processing
<div>Install & Setup F1 Install F2 Setup</div>	<ul style="list-style-type: none">- Select following jobs.<ul style="list-style-type: none">F1 : Reloader installationF2 : Set up environmentCLR : End
<div>Install & Setup Password _____</div>	<div>Set up environment<ul style="list-style-type: none">- Submit password.<ul style="list-style-type: none">"1472"</div>
<div>Setup Set up code = __</div>	<ul style="list-style-type: none">- Submit function code.<ul style="list-style-type: none">50 : Date change51 : Time change52 : Change Line53 : Change HOST telephone number54 : Set up receipt automatic print-out55 : Set up configuration print56 : Set up display for passenger57 : Backup transaction transferring
<div>Change date 00/07/31 _/_/_</div>	<div>Change date<ul style="list-style-type: none">- Display current date with year, month, day order.- Input new date to change.- CLR : End</div>
<div>Change time 10:30 _:__</div>	<div>Change time<ul style="list-style-type: none">- Display only time and minute.- Input time and minute to change.- CLR : End</div>



Display / Print	Processing
<div>Change Line</div> <div>Line PSTN RS-232C</div>	Change Line - Select line to use. F2 : PSTN F3 : RS-232C CLR : End
<div>Change Line</div> <div>Switchboard YES NO</div>	- Select switchboard usage in PSTN. F2 : YES (Use switchboard) F3 : NO (Do not use switchboard) CLR : End
<div>Change Line</div> <div>Dial mode TONE PULSE</div>	- Select dial mode in PSTN 이면. F2 : TONE (Electronic mode) F3 : PULSE (Mechanic mode) CLR : End
<div>Change Tel no.</div> <div>1234567 _____</div>	Change HOST tel no. - Display current tel. No. for HOST connection. Input new tel. No. for HOST connection to change. Max 16 digits available
<div>Auto Receipt</div> <div>YES NO</div>	Auto receipt print out - Select auto receipt printing. F2 : YES (Print out receipt automatically) F3 : NO (Do not print out receipt automatically) CLR : End



Display / Print	Processing
<div><div>Print setup</div><div>Please Wait</div></div>	<div>Print set up configuraton<ul style="list-style-type: none">- Print out set up configuration.</div>
<div><div>Passenger display</div><div><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</div></div>	<div>Passenger display using<ul style="list-style-type: none">- Select passenger display using.<ul style="list-style-type: none">F2 : YES (Use passenger display)F3 : NO (Do not use passenger display)CLR : End</div>
<div><div>Upload backup</div><div>Recharge 10/50 Please Wait</div></div>	<div>Backup transaction transferring<ul style="list-style-type: none">- Transfer backup transaction on Flash ROM to HOST. Reloading transaction should set re-transferring flag. Display Transaction class, total amount of transaction, total amount of transferring.</div>